

REMARKS

I. Status Summary

Claims 1-11 are pending in the present application. Claims 1, 4, 5, 8, and 9 have been rejected by the U.S. Patent and Trademark Office (hereinafter the "Patent Office"). The Patent Office has objected to claims 2, 3, 6, 7, 10, and 11.

Claims 1, 5, and 9 have been amended. Claims 2, 3, 6, 7, 10 and 11 have been amended to independent form. New claims 12-15 have been added. Support for the amendments and the new claims can be found throughout the specification as filed. No new matter has been added. Therefore, upon entry of Amendment A, claims 1-15 will be pending in the subject application.

Reconsideration of the application as amended and further in view of the remarks set forth herein below is respectfully requested.

II. Response to Rejection under 35 U.S.C. § 102(b) over Boykin

Claims 1, 4, 5, and 9 have been rejected under 35 U.S.C. § 102(b) upon the contention that the claims are anticipated by PCT International Publication No. WO 01/03685 to Boykin et al. (hereinafter "Boykin"). In particular, the Patent Office contends that Formula (I) of Boykin discloses compounds described by the instant claims.

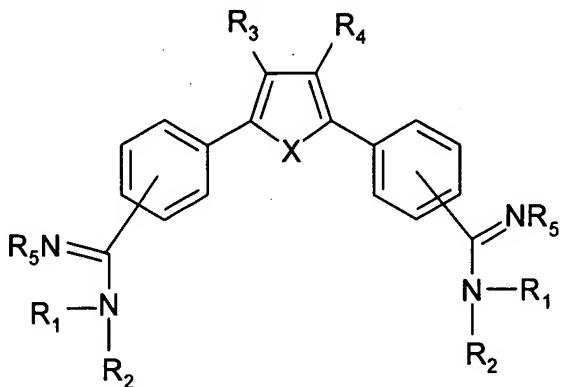
After careful consideration of the rejection and the Patent Office's comments, applicants respectfully traverse the rejection and offer the following remarks.

Initially, applicants respectfully submit that claims 1, 5, and 9 have been amended to recite that at least one of variables A, B, Y, and Z is a heteroatom or substituted heteroatom (*i.e.*, N, NR¹⁷, O, or S). Support for this amendment can be found in the specification in Examples 1-6 (see Specification, pages 18-23 and 25-36), which disclose several diaryl-substituted compounds, wherein at least one of the aryl substituents is a heteroaryl moiety. See, for example, compounds 4-7 in Scheme 1, compounds 11-13 in Scheme 2, compounds 17-

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20 in Scheme 3, compounds 22-24 in Scheme 4, compounds 27, 29, and 30 in Scheme 5, and compound 31 in Scheme 6. Support can also be found in the specification in Formula (III), a diaryl-substituted furan compound wherein one of the diaryl substituents is also a furan. See Specification, page 10.

Applicants respectfully submit that Formula (I) of Boykin describes a diphenyl-substituted compound having the following structure:



Boykin does not appear to teach or suggest the substitution of heteroatoms into either of the phenyl rings of Formula (I).

As described hereinabove, claim 1 and each of the other independent claims, 5 and 9, recite that at least one of the atoms of the two outer aryl rings of Formula (I) (*i.e.*, one of A, B, Y, and Z) must be a heteroatom selected from N, NR^{17} , O, or S. Claims 1, 5, and 9 further recite that B, Z, or both B and Z are not present when A, Y, or both A and Y are O, S, or NR^{17} . Applicants respectfully submit that Boykin does not teach or suggest the compounds of claims 1, 5, and 9. Further, as claim 4 is dependent on claim 1, claim 4 contains each and every element of claim 1. Thus, applicants believe that claim 4 has also been distinguished over Boykin.

Accordingly, applicants respectfully request the withdrawal of the rejection of claims 1, 4, 5, and 9 under 35 U.S.C. § 102(b) over Boykin. Applicants also respectfully request that claims 1, 4, 5, and 9 be allowed at this time.

III. Response to Rejection under 35 U.S.C. § 102(b) over Tidwell

Claims 1, 4, and 9 have been rejected under 35 U.S.C. § 102(b) upon the contention that the claims are anticipated by PCT International Publication No. WO 00/04893 to Tidwell et al. (hereinafter “Tidwell”). In particular, the Patent Office alleges that Tidwell (Table 2, pages 26-27) discloses compounds described by the current claims, specifically DB75, DB181, DB244, DB351, and DB262.

After careful consideration, applicants respectfully traverse the rejection and offer the following remarks.

As described hereinabove in Section II, claims 1 and 9 have been amended herein to recite that at least one of variables A, B, Y, and Z is a heteroatom: N, NR¹⁷, O, or S. Claim 4 depends from claim 1, and, therefore, contains each and every element of claim 1. Thus, claims 1, 4, and 9 are believed to be distinguished over the disclosure of Tidwell. For example, in Tidwell, each of DB75, DB181, DB244, DB351, and DB262 comprises a diaryl-substituted furan comprising two phenyl rings as the aryl substituents.

Accordingly, applicants respectfully submit that claims 1, 4, and 9 do not read on the disclosure of Tidwell. Applicants respectfully request the withdrawal of the rejection of claims 1, 4, and 9 under 35 U.S.C. § 102(b) over Tidwell and ask that claims 1, 4, and 9 be allowed at this time.

IV. Response to Rejection under 35 U.S.C. § 102(b) over Stephens

Claims 1, 4, 5, 8, and 9 have been rejected under 35 U.S.C. § 102(b) upon the contention that the claims are anticipated by Stephens et al. (*J. Med. Chem.*, 44, 1741-1748 (2001); hereinafter “Stephens”). In this regard, the Patent Office directs applicants’ attention to Stephens at page 1743, Table 1.

After careful consideration, applicants respectfully traverse the rejection and offer the following remarks.

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As described hereinabove, claims 1, 5, and 9 have been amended to recite that at least one of variables A, B, Y, and Z is a heteroatom selected from the group consisting of N, NR¹⁷, O, and S.

Applicants respectfully submit that the all of the compounds disclosed by Stephens, including each of the compounds disclosed in Table 1, comprises a diphenyl furan. Stephens does not teach or disclose compounds comprising a diaryl furan wherein one or both of the outer aryl groups are heteroaryl moieties.

Applicants further submit that claims 4 and 8 depend from claims 1 and 5, respectively. As such, claims 4 and 8 include the elements of claims 1 and 5.

Accordingly, applicants respectfully submit that claims 1, 4, 5, 8, and 9 have been distinguished over Stephens and request that the rejection of claims 1, 4, 5, 8, and 9 under 35 U.S.C. § 102(b) be withdrawn. Applicants further respectfully request that claims 1, 4, 5, 8, and 9 be allowed at this time.

V. Objections

The Patent Office has objected to claims 2, 3, 6, 7, 10, and 11 as being dependent upon rejected base claims. The Patent Office has indicated that claims 2, 3, 6, 7, 10, and 11 would be allowable if rewritten in independent form.

Claims 2, 3, 6, 7, 10, and 11 have been so amended. Therefore, applicants respectfully ask that claims 2, 3, 6, 7, 10, and 11 be allowed at this time.

VI. New Claims

New claims 12-15 have been added by the present amendment.

Support for new claim 12 can be found the specification as filed. See Specification, page 18, Scheme 1, compound 5 (DB844); and page 27, lines 15-30.

Support for new claims 13-15 can also be found in the specification as filed. In particular, data showing the *in vitro* and *in vivo* anti-microbial activity of compound 5 versus microbial infections, including *Trypanosoma brucei*

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rhodensiense, *Plasmodium falciparum*, and *Leishmania donovani* can be found in Example 8 and Table 1. See Specification, page 38, lines 3-12, and page 39.

Accordingly, applicants believe that no new matter has been added.

CONCLUSIONS

In light of the above amendments and remarks, it is respectfully submitted that the present application is now in proper condition for allowance, and an early notice to such effect is earnestly solicited.

If any small matter should remain outstanding after the Patent Examiner has had an opportunity to review the above Remarks, the Patent Examiner is respectfully requested to telephone the undersigned patent attorney in order to resolve these matters and avoid the issuance of another Official Action.

DEPOSIT ACCOUNT

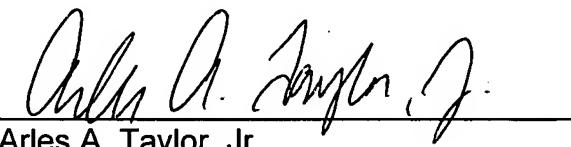
The Commissioner is hereby authorized to charge any fees associated with the filing of this correspondence to Deposit Account No. 50-0426.

Respectfully submitted,

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Date: July 14, 2006

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